REMARKS

Applicant has amended his claims herein to better clarify the invention. Claims 1, 6, 14, and 19, are amended herein to recite, *inter alia,* an analyte chamber comprising a mechanical iris defining an orifice. Support can be found in the Specification on Page 6 at Line 14 through Page 7 at Line 3, and in FIGs. 3A, 3B, 3C, and 5.

Claims 1, 6, 14, and 19, are amended herein to recite, *inter alia*, a wick disposed within the chamber, liquid analyte absorbed in the wick, and headspace comprising a volume of the chamber minus a volume of the wick, wherein when the orifice is closed an equilibrium exists between a gaseous concentration of the analyte in said head space and the liquid analyte absorbed in the wick. Support can be found in the Specification on Page 5 at Lines 10-12, Page 5 at Line 28 through Page 6 at Line 2, Page 6 at Lines 19-20.

Claim 6 is further amended herein to recite, *inter alia*, a fluid flow conduit formed to include an aperture extending therethrough and connecting said positive pressure assembly and a detector. Support can be found in the Specification on Page 8 at Line 7, and in FIGs. 4 and 5 at element 450.

Claim 6 is further amended herein to recite, *inter alia*, that an orifice defined by a mechanical iris disposed in an analyte chamber is in communication with an aperture formed in the fluid flow conduit. Support can be found in the Specification on Page 10 at Lines 27-28, and in FIG. 5 at elements 250 and 450.

Claim 14 is further amended herein to recite, *inter alia*, closing an orifice defined by a mechanical iris disposed in an analyte chamber after disposing by capillary action a liquid analyte in a wick disposed within said analyte chamber. Support can be found in the

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Specification on Page 13 at Lines 15-25, and in FIG. 6 at step 625.

Claim 14 is further amended to recite, *inter alia*, disposing the analyte chamber in a portable calibration apparatus comprising a portable detector, and transporting the portable calibration apparatus to a stationary detector. Support can be found in the Specification on Page 13 at Line 27 through Page 14 at Line 2.

Claim 15 is amended herein to recite, *inter alia*, providing a first concentration of the gaseous analyte, measuring the first concentration using the portable detector, providing the first concentration of the gaseous analyte to the stationary detector, and calibrating the stationary detector using the first concentration. Support can be found in FIG. 6 at step 655 setting (j) equal to 1, and on Page the Specification on Page 15 at Lines 1-5 for (j) equal to 1.

Claim 15 is further amended herein to recite, *inter alia*, providing a second concentration of the gaseous analyte, measuring the second concentration using the portable detector, providing the second concentration of the gaseous analyte to the stationary detector, and calibrating the stationary detector using the second concentration. Support can be found in FIG. 6 at step 655 setting (j) initially equal to 1 and in step 690 setting (j) equal to (j) + 1, i.e. setting (j) equal to 2, and on Page the Specification on Page 15 at Lines 1-5 for (j) equal to 2.

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph , as being indefinite. Claim 15 is amended herein to cure this rejection.

Claims 1, 3 and, 4 stand rejected under 35 U.S.C. 102 (b) as being anticipated by O'Hagan (U.S. Pat. No. 3,129,888).

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Claims 1-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cline et al. (U.S. Pat. No. 4,166,087) in view of O'Hagan.

Claims 6-12, and 14 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Davies et al. (U.S. Pat. No. 5,452,600).

Claims 13 and 16-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al.

Claim 14 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Sorensen et al. (U.S. Pat. No. 6,23,4001).

Claim 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al. or Sorensen et al., in view of Iwanaga et al. (U.S. Pat. No. 4,457,161), and in further view of Prober et al. (U.S. Pat. No. 4,259,573).

Claims 19-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al. in view of Becker (U.S. Pat. No. 6,835,927).

"To anticipate a claim, a single prior art reference must expressly or inherently disclose each claim limitation . . . But disclosure of each element is not quite enough - this court has long held that anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1334 (Fed.Cir. 2008).

O'Hagan nowhere teaches an analyte chamber comprising a mechanical iris defining an orifice, a wick disposed within the chamber, a liquid analyte absorbed in the wick, headspace, and gaseous analyte disposed in the headspace wherein the headspace comprises a volume within the chamber minus a volume of the wick, wherein when the orifice is closed an

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equilibrium exists between a gaseous concentration of said analyte in the head space and the liquid analyte absorbed in the wick, as recited by claim 1, as amended herein. This being the case, Applicant respectfully submits that claim 1, as amended herein, is patentable over the teachings of O'Hagan.

Cline fails to cure the deficiencies of O'Hagan. Neither Cline, nor O'Hagan, singly or in combination, teach an analyte chamber comprising a mechanical iris defining an orifice, a wick disposed within the chamber, a liquid analyte absorbed in the wick, headspace, and gaseous analyte disposed in the headspace wherein the headspace comprises a volume within the chamber minus a volume of the wick, wherein when the orifice is closed an equilibrium exists between a gaseous concentration of said analyte in the head space and the liquid analyte absorbed in the wick, as recited by claim 1, as amended herein. Applicant respectfully further submits that claim 1, as amended herein, is patentable over the combined teachings of Cline and O'Hagan.

Claims 2 and 5, as amended herein, depend, directly or indirectly, from claim 1, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 2 and 5, as amended herein, are patentable over the combined teachings of Cline and O'Hagan.

Davies et al. nowhere teach a portable calibration apparatus comprising an analyte chamber comprising a mechanical iris defining an orifice, a wick disposed within the chamber,

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a liquid analyte absorbed in the wick, headspace, and gaseous analyte disposed in the headspace wherein the headspace comprises a volume within the chamber minus a volume of the wick, wherein when the orifice is closed an equilibrium exists between a gaseous concentration of said analyte in the head space and the liquid analyte absorbed in the wick, as recited by claim 6, as amended herein.

In addition, Davies et al. nowhere teach a portable calibration apparatus comprising a fluid flow conduit formed to include an aperture extending therethrough and connecting a positive pressure assembly and a detector wherein an orifice defined by a mechanical iris disposed in an analyte chamber is in communication with the aperture formed in the fluid flow conduit, as recited by claim 6, as amended herein. This being the case, Applicant respectfully submits that claim 6, as amended herein, is patentable over the teachings of Davies et al.

Claims 7-13, as amended herein, depend, directly or indirectly, from claim 6, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 7-13, as amended herein, are patentable over the teachings of Davies et al.

Davies et al. nowhere teach a method to calibrate a stationary gas detector comprising providing a portable calibration apparatus comprising a positive pressure assembly, a portable detector, an analyte chamber comprising a mechanical iris defining an orifice and a wick disposed within the analyte chamber, and a fluid flow conduit formed to include an aperture

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extending therethrough, wherein the fluid flow conduit interconnects the positive pressure assembly and the detector, and wherein the orifice is in communication with the aperture, as recited by claim 14, as amended herein. In addition, Davies et al. nowhere teach absorbing by capillary action a liquid analyte in a wick, as recited by claim 14, as amended herein.

Moreover, Davies et al. nowhere teaches closing an orifice defined by a mechanical iris disposed in an analyte chamber, wherein when the orifice is closed an equilibrium exists between a gaseous concentration of an analyte in the head space and a liquid analyte absorbed in the wick, as recited by claim 14, as amended herein. Furthermore, Davies et al. nowhere teaches disposing an analyte chamber in a portable calibration apparatus comprising a portable detector, and transporting that portable calibration apparatus to a stationary detector, as recited by claim 14, as amended herein.

Applicant respectfully submits that claim 14, as amended herein, is patentable over the teachings of Davies et al. Regarding claims 15-18, Sorensen et al., Iwanaga et al. and Prober et al. fail to cure the deficiencies of Davies et al. Neither Davies et al., nor Sorensen et al., nor Iwanaga et al., nor Prober et al., singly or in combination, teach a method to calibrate a stationary gas detector comprising providing a portable calibration apparatus comprising a positive pressure assembly, a portable detector, an analyte chamber comprising a mechanical iris defining an orifice and a wick disposed within the analyte chamber, and a fluid flow conduit formed to include an aperture extending therethrough, wherein the fluid flow conduit interconnects the positive pressure assembly and the detector, and wherein the orifice is in communication with the aperture, as recited by claims 15-18, as amended herein. In addition, neither Davies et al., nor Sorensen et al., nor Iwanaga et al., nor Prober et al., singly or in

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combination, teach absorbing by capillary action a liquid analyte in a wick, as recited by claims 15-18, as amended herein.

Moreover, neither Davies et al., nor Sorensen et al., nor Iwanaga et al., nor Prober et al., singly or in combination, teach closing an orifice defined by a mechanical iris disposed in an analyte chamber, wherein when the orifice is closed an equilibrium exists between a gaseous concentration of an analyte in the head space and a liquid analyte absorbed in the wick, as recited by claims 15-18, as amended herein. Furthermore, neither Davies et al., nor Sorensen et al., nor Iwanaga et al., nor Prober et al., singly or in combination, teach disposing an analyte chamber in a portable calibration apparatus comprising a portable detector, and transporting that portable calibration apparatus to a stationary detector, as recited by claims 15-18, as amended herein.

Regarding the rejections of claims 19-21, neither Davies et al. nor Becker, singly or in combination, teach use of an analyte chamber comprising a mechanical iris defining an orifice, a wick disposed within said chamber, liquid analyte absorbed in said wick, and headspace comprising a volume within said chamber minus a volume of said wick, wherein when said orifice is closed an equilibrium exists between a gaseous concentration of said analyte in said head space and said liquid analyte absorbed in said wick, as recited in claims 19-21, as amended herein. This being the case, Applicant respectfully submits that claims 19-21 are patentable over the teachings of Davies et al. and Becker.

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Having dealt with all of the outstanding objections and/or rejections of the claims, Applicant submits that the application as amended is in condition for allowance, and an allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or additional fees are payable, please charge them, or credit an overpayment, to our Deposit Account No. 170055.

Respectfully submitted,

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